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PROJECT PROMETHEUS AND KRISHNA

By Dr. Oliver L. Reiser

At The Accra Assembly, meeting in Ghana from 21st - 28th June, 1962, devoted to discussions of "The World Without the Bomb," a proposal designated as PROJECT PROMETHEUS was outlined by Julie Medlock and Oliver L. Reiser. Here a plan was presented looking toward the construction and orbiting of a global communications satellite to be owned collectively by the peoples of the earth, thereby serving as a common symbol of the unity of mankind, the planetary species.

In the words of the official document, this was the theory of the proposal:

> "That the United Nations invite and authorize the USA and the USSR jointly to construct and orbit a communications satellite, to be known as Prometheus, - a global radio and television satellite to be owned and paid for, perhaps at least partly by popular subscription, by the peoples of the earth."

The explanation for the proposal was as follows:

> "Mankind is now moving into the era of the conquest of outer space, communications satellites, controlled thermonuclear energy, electronic computers, automation in industry, con-controlled photo-synthesis, and many other revolutionary development The benefits of such discoveries in science and technology should be available for the welfare of the entire human race. It is unthinkable, for example, that the varied opportunities opened up by the advent of communications satellites should be limited only to those nations which can afford to pay for commercial services. This would be missing the un-precedented opportunities for cultivating world good will and understanding. All humanity has a stake in the potentialities of such novel and revolutionary developments."

In the official document it was then proposed that the programming for Prometheus be supervised by an international committee of scholars responsible to UNESCO, and that these programs be used for world-wide public education, disseminating impartial information on methods and techniques for world objectives and ideals.

Here - it was suggested - is one place where international cooperation is possible, without creating tensions and rivalries. If the USSR is unable to collaborate, the U.S. could supply (not donate) the satellite to the United Nations - thus bringing fire and light from the heavens above to the billions of people of the earth.

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This proposal elicited a number of favorable comments. My letter to the Saturday Review (October 27, 1962, p.25), calling attention to this Project, brought forth inquiries for more information about the proposal. Meantime, my own ideas about the possibilities of using the skies above for global communication and improved world understanding did not remain static. It is my purpose here to outline these further developments.

Those who are familiar with these matters know that any satellite which approximates the orbit of Telstar would be limited in time to about 20 minutes per day (for each orbit of the earth), and even this broadcast period would be available to peoples within limited geographical areas. This places severe limitations upon the proposed uses of Prometheus, especially since this satellite is designed to service all the nations of the earth - Asia and Africa no less than the nations of the Western world.

One way to avoid this difficulty is to have several satellites in orbit at a distance of 22,300 miles above the earth. At this distance (height above the earth's surface), the orbital speed of the satellites would be synchronous with the earth's period of rotation, i.e., the satellites would remain at the same location over the rotating earth. Ideally three satellites would be required to create a global relay system, with one over the Atlantic, another over the Indian, and a third over the Pacific Ocean; and in that manner the synchronous system could continuously send out programs to any points on the earth except the poles. Indeed, this is planned by NASA. (USA National Aeronautics and Space Administration).

But because of the added expense, and for another reason which will be made clear in a moment, the present extension of the UN satellite project calls for two communications satellites to be placed in orbit as strategically as possible in order to reach the maximum number of peoples of the Eastern and Western hemispheres.

The second satellite would be placed somewhere over Asia. As a companion satellite, named Krishna for reasons of historical

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symbolism, it would share with Prometheus the task of making available to the world the traditions, achievements, and ideals of the other half of the world.[1] It would involve a considerable oversimplification to say that Krishna, symbolizing the religions, arts, and philosophies of the East, hovering over the Atlantic Ocean, could communicate to Europe and the Americas the substance and spirit of Oriental cultures, the ancient East; while Prometheus hovering over the Oriental world, could bring to the East the sciences and technologies of the West - the mastery over the external environment. Together they would cover the earth with two radiation belts of thought, and in that respect be comparable to the Van Allen radiation belts.[2] In a sense, these two global satellites could be personifications of the "yang" and "yin" of ancient Chinese tradition. Presumably, one could exploit this male-female analogy still further - perhaps somewhat after the fashion of Professor Northrop's aesthetic and theoretic components. Beyond that, one could also conceive of the introduction of "teaching machines" in Prometheus and Krishna for the speeding up of the education of the under-developed peoples of the earth. There just simply is not time any more in our rapidly changing world for the slow processes of education - we must get rid of illiteracy within a generation, if we are not to lose the battle of man.

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[1]The practical consequence of nuclear fission was the atom bomb, which burst into a blinding radiance so intense that Dr. J. Robert Oppenheimer - witnessing the explosion and remembering his studies of the Bhagavad Gita - was forced to exclaim: " It was as if it were the glory of a thousand suns." This quotation of Arjuna in praise of Krishna suggested to the physicist that the terrific white light produced by the splitting atoms of the bomb is like pure spirit escaping into matter. One who is more given to the uses of Occidental imagery would perhaps have thought of this as like Prometheus drawing the energy of fire and light from the heavens. But this, for us, is no alternative - we have already given Prometheus a job to do, hardly less arduous than a labor of Hercules!

[2]This idea was first outlined in my article "The Radiation Belts of Thought," published in Darshana (India), Vol.II, 1962 (October), pp. 100-127.

The foregoing exploratory probes into the future inevitably lead to the suggestion that the world needs one universal language for global communication and understanding. This "one language for one world" might well utilize the Semantography which was perfected by C.K. Bliss in Australia. Such issues, however, are not among the initial problems to be faced, which are primarily practical in nature.

To be sure, there are other practical problems to be dealt with. No satellites as now envisioned can broadcast radio or television directly to home receivers. This means that each nation must have its own internal distribution system, including all necessary ground facilities for sending, receiving, and distributing the cultural and educational programs. In "backward" countries, where radio and television sets are rare, perhaps facilities for group audiences could be utilized (i.e. churches, schools, assembly halls, etc.). But these are practical and technical problems which can be overcome when the will and the money have been mobilized. Also we will need to know more about the Van Allen radiation belt and the "radiation sickness" that can afflict communication satellites when man tampers with this belt.

These fragmentary suggestions are sketchy in nature; but they do hint at the breathless and awesome possibilities opened up by the new technologies. If the United Nations satellites were synchronized to the revolution of the earth, each could broadcast to its own hemisphere the radio and television programmes woven around such key personalities as

East		West	
1. Krishna	11. Patanjali	1. Thales	11. Ptolemy
2. Akhenaton	12. Jesus Christ	2. Pythagoras	12. Galileo
3. Moses	13. Mohammed	3. Anaximander	13. Kepler
4. Zoroaster	14. Baha'u'llah	4. Empedacles	14. Copernicus
5. Buddha	15. Tagore	5. Democritus	15. Newton
6. Mahavira	16. Gandhi	6. Socrates	16. Darwin
7. Confucius	17 have	7. Plato	17. Marx
8. Shankara	18. Sri Aurobindo	8. Aristotle	18. Freud
9. Ramananda	19. Radhakrishnan	9. Euclid	19. Einstein
10. Lao Tze		10. Archimedes	20. Russell.

In this manner a good part of the planet would be covered: we would

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"put a girdle 'round the earth" - as Shakespeare foresaw - eventually to bind the members of the human family into the form of unity. All this, of course, would have to be approved by a UNESCO committee of world scholars, still to be appointed.

One may well inquire, what is the end-result of this tremendous straining toward world communion and unity? The briefest answer may be that this is the only foreseeable way of avoiding world chaos. Somewhere, sometime, somehow, we humans will perforce find a way to send up a flag (satellite) around which the whole world can rally--else we descend downward and deathward toward collective insanity and mass suicide. It is not possible here to recapitulate the argument as set forth in my essay, "The Integration of Knowledge as a Basis for a General Ideology," which appears in the volume, The Humanist Frame (1962), edited by Sir Julian Huxley. It should be noted, however, that my plea for a World Philosophy ("general ideology") to serve as the guiding field for man's future conscious evolution is not the voice of a solitary figure crying out in the wilderness. My own first motivations were inspired in part by that dreamer of utopias, Mr. H.G. Wells, whose treatise on The World Brain (1938) painted a compelling picture of the job that needs to be done. Beyond that, and somewhat later, the article by W.I. Vernadsky[3] called attention to the same process of social synthesis, "whereby mankind became a single totality in the life of the earth," - this, be it noted, "in the interest of freely thinking humanity as a single totality." This qualification by the Russian scientist should relieve the "general ideology" of the suspicion of totalitarianism."

In this fashion the "psychozoic era" of the earth's biosphere can be transformed into the Noösphere, the emerging reality recognized by a French mathematician in 1927 and later given more coherent form by Tielhard de Chardin in his well-known work, The Phenomenon of Man (Eng. trans., 1959). According to the argument, we should think of the earth as a sequence of spherical shells or envelopes - the barysphere, lithosphere, hydrosphere, atmosphere

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[3]Cf. "The Biosphere and the Noösphere, by W.I. Vernadsky, American Scientist, Vol.33, 1945, pp. 1-12.

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and biosphere. Now at long last, the processes of cultural evolution have generated another envelope, superimposed on the biosphere, i.e. a "sheet of humanized and socialized matter," which is the noösphere. This new envelope is exclusively the product of genus Homo, and embraces man's intellectual, social, and technological creations - in short, the ensemble composed of evolving man's cultures.

This concept and the emerging reality it symbolizes mark a great advance in human development. The continued evolution of man will be considerably accelerated by the global satellites which even now are coming over the horizon of planetary history. Prometheus and Krishna may well symbolize and adumbrate this proliferating Noösphere - though for reasons given in my article on "The Radiation Belts of Thought," I prefer to designate this organ of integration as the World Sensorium, a term I have employed for many years. All this is possible - under whatever rubrics we prefer - provided man has the requisite imagination and will to discern and grasp the great opportunities opened up to him by his new technologies. This emergent synthesis would constitute a world-wisdom for mankind, surely a consummation devoutly to be sought.

We have already made the point that the programming for the planetary satellites will stress cultural and educational projects. The "brains" behind the programming for the impartial dissemination of information and the integration of knowledge might well be constituted of the members ("cortical neurons") of a World University.

One immediate project could be the "Voice of World Science" program. Ultimately - before the 20th century is over - it might be feasible to activate the "Voice of World Philosophy, "disseminating what could be called a Cosmic Humanism. The institution of a world federation might properly represent one of the more remote goals. Meantime, world-wide public education, explaining the methods and techniques for the implementation of presently accepted planetary

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ideals and objectives, would constitute one practical goal of Project Prometheus-Krishna, thus providing some creative release for the mounting tensions of the anxiety-ridden millions of human beings milling about on the surface of the earth.

Background on which Satellite Communication could be based: the guiding field for an emerging Planetary Society

It is the purpose that galvanizes men into action. Therefore, the secret of a happy world and an enduring peace must be a worthy social purpose - let us say a planetary purpose. Scientific humanism is permeative in spirit. It is concerned with unifying the integrative tendencies already in existence. Its function is cohesive. Its instrument is education. Its goal is cosmic.

As a "philosophical technology" which supplements the established technologies of industry and medicine, the scientific humanism projected will aim at the formulation of a universal ethics as the guiding field for the proliferation of a planetary democratic society. In order to achieve this mature world civilization, many converging objectives will have to be brought into focus. An inclusive list of envisaged goals, the minimal basis for an emerging world federation to be brought into being in the remainder of the 20th century, encompasses the following:

I. Primary Objectives of a Scientific Humanism:

(1) Prevention of hot wars, reducing international tensions, and suspension of nuclear tests for military purposes.

(2) Overcoming mass illiteracy, mass starvation, mass unemployment, and mass prejudices based on national, "racial", and religious differences.

(3) Elimination of preventable diseases, industrial hazards, and malnutrition. Health is a public responsibility.

(4) Reduction of excessive population increase; responsible parenthood and wholesome family life through fertility clinics, birth control, and economic well-being.

(5) Greater sharing of atomic knowledge and power for peaceful purposes. Conservation of natural resources. Preservation of natural beauty, wild life, etc.

II. Planning for Education and Civic Life:

(1) Formulation of an ethics of belief and action for a planetary society.

(2) Cultivation of intellectual curiosity and natural piety, with truth as a supreme value everlastingly sought for.

(3) Planned research and better dissemination of information, universalizing the techniques for solving human problems.

(4) Education for creative self-development, compassionate thinking, emotional stability, and planetary citizenship.

(5) Intercultural exchange programs on an intra- and international scale.

III. Economic Planning:

(1) Control of industrialization and automation for optimum employment, production, distribution, and consumption of goods and services. It must be kept in mind that greater consumption is not necessarily a goal in itself; it can lead to bad effects as Joseph Wood Krutch points out in his book, Human Nature and the Human Condition.

(2) Public Housing, with higher standards of living (including refrigeration, sanitation, heating, etc.)

(3) Reduction of tariff barriers and the development of international currency stabilization.

(4) Socialized insurance against unemployment, old age, etc.

(5) Socially owned and co-operative presses and publishing.

IV. Political Planning:

(1) World planning of public works programs: highways and tunnels connecting continents and nations.

(2) Dissemination of cultural achievements and facilities, with the products of humanistic activities made available on an increasing broad base of enjoyment.

(3) Raising the standards of appreciation in mass media entertainment (cinema, radio, television, etc.).

(4) Mobile [illegible]n collections and regional library facilities.

(5) Arts are not luxuries for the "intellectuals"; but arts are important parts of morally responsibile actions which are necessary for creative self-development, social participation, and a source of proper pride in social achievements.

The foregoing list of objectives is comprehensive, integrative - and "utopian." But if it is possible to build an "inter-thinking" group of friendly peoples the world over, the foregoing program (or some mutually acceptable modification of it) is attainable. If men can voluntarily and co-operatively envisage the humanist frame for a world civilization based on a universalist ethics, we can transform the earth, its teeming populations, and man's place in the wider scheme. For example, an immediately attractive

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prospect for international co-operation - thus "reducing tensions" between "East" and "West" - arises from the growing psychosocial compulsion toward a "combined operations" program for exploring outer space, with a correlative drive toward supernational (global) space laws for artificial satellites and interplanetary space-ships and other extra-terrestrial conquests by man, the cosmic species. Already OZMA is reaching out in search of intelligent beings in other universes. Meantime, here on the earth, the type of ideological unification and social integration we have envisioned is essential if we are to preserve the best elements of our heritage of cultural diversities - indeed, if man is merely to survive.

If all the enlightened peoples of the world would close their ranks, would pool their strength, would raise with steady hands the oriflamme of faith in human intelligence, the enemies of humanity - those who are mutilating and plowing under the truths of science and the highest social values - would come to an inevitable defeat in the parliament of man. Believing this, scientific humanism offers itself as an emerging philosophy of synthesis, a social lens to focus and unify human vision, thus giving coherent form to collective aspirations and purposes.

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